

AMATEUR RADIO



Published in the interests of Amateur Radio
by the W.I.A. (Vic. Div.). Official Organ
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FEBRUARY, 1936

Amateur Radio

1936—RADIO AMATEUR'S HANDBOOK

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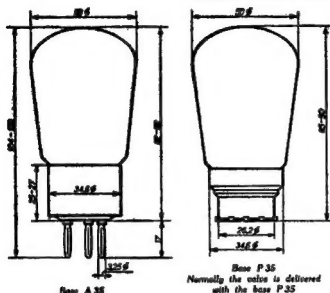
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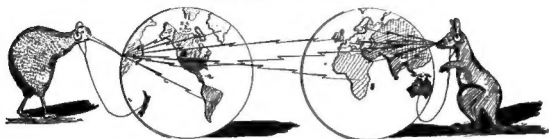
WORLD'S LARGEST RADIO MANUFACTURERS

In Memoriam



The Members of the
Wireless Institute of
Australia and the Royal
Australian Air Force
Reserve Wireless Sec-
tion deeply mourn the
loss of King George V.

Contest Results



VK-ZL International DX Contest

(By R. H. Cunningham, VK3ML, Manager W.I.A.-N.Z.A.R.T. Contest Committee.)

The success of a contest can be solely judged by the number of entrants; the more logs returned the bigger the show. If we all agree on this we have every right to say that this contest was even better than the Centenary one of 1934. October, 1935, aided by good radio conditions, attracted more stations than ever. Aided by support from ZL, the VK's were able to offer the DX stations more contacts, which is necessary to cope with the extraordinarily large number of them that returned logs this year. Whether the bands were sufficiently "saturated" with VK's and ZL is hard to say, but, judging by the comments from all the overseas stations, there must have been enough to make everybody happy.

At this juncture the N.Z.A.R.T. and the Victorian Division of the W.I.A. wish to take the opportunity of congratulating the many overseas societies that took our contest to heart and gave it the support and publicity we so very much appreciate. If their members got as much fun out of the contest as the ZL and VK's did, then it really did deserve world-wide support.

Our heartiest congratulations are extended to the top scorers, both in VK, ZL and all parts of the globe. VK3EG obtained his greatest score on 7 and 14 m.c. only. What a difference a few 28 m.c. contacts would have made to his total! VK4BB, after making 188 contacts in 35 countries, added a cool 61 contacts on 28 m.c. His best effort was 28 ten-metre QSO's in a string, consisting

of W, J, F, ON and G. VK3EG worked 50 countries, made W.A.C. in 6 hours 23 minutes, and W.B.E. in 80 minutes. VK3MR was not far behind this year either, with 31 countries and a couple of 28 m.c. contacts. VK2LZ made 80 28 m.c. contacts, 17 of which he had to lose owing to the cross checking of the serial numbers showing up inaccuracies in operating. VK3PG worked 17 countries with the usual 3.5 watts input. ZL2CI did a great job with 100 watts and a 7 tube S.S.S. Thirty-seven countries made up his multiplier. ZL1GX made 13 contacts on 28 m.c. as well as 37 countries on other bands.

W9TB, with his P.P. Parallel 860's, blocked many a second detector, and turned in a nice 4800 points. W6KRI develops 1 k.w. also in his P.A., and marked up the best W total of 5040 points. W5EHM did splendidly with 3187 points. W5QL returned 22 28 m.c. contacts and topped the W ten-metre section. W5WG came a good third in that class with 21 28 m.c. QSO's. ZL4BT made both W.A.C. and W.B.E. within 5 hours. He was probably the only one to get these as he actually contacted an Oceanic station—a ZL !!

D4ARR made 10 ZL-VK districts, and three 28 m.c. contacts. F8EB worked ten districts also, and all on 14 m.c. G6CJ maintained top G score with 2220 points. HB9AT had no opposition, but they would have had to have gone some to compete with his de luxe beam 14 m.c. signal. PAOAZ made ten districts with 50 watts into a Zepp. OA4J was a delight to contact for many VK's, who

still wanted South America for the coveted W.A.C. His signals were just "plus, plus, plus" most of the time. VE5BI made a fine impression with his 400 watts and a good fist. VU7FY knocked up a rattling score of 2730 with 10 watts input. VS6AX pipped VS6AH by ONE district and no more! Both stations made 72 contacts. ZS2X stuck to 7 and 14 m.c., whilst ZS1H rotated the 28 m.c. beam all the time.

An explanation is due to the reason for the awarding of two separate certificates under every award rule of the contest. This was brought about by a misunderstanding that arose due to the too loosely worded rule number 14, which relates to a 500 point bonus for 28 m.c. At the time of the formulation of the rules the contest committee never, in their wildest dreams, thought that this band would suddenly spring a surprise on the world and open up international contacts. Possibly no one else would have guessed it, either. Consequently, in the minds of the committee, this rule was sufficiently watertight. A tremendous amount of discussion took place between both of our societies in regard to nearly every rule in the contest. It is interesting to note that Rule 14 was never queried in any shape or form, but was taken for granted. However, 28 m.c. turned up trumps and caused participating stations to look more closely into Rule 14. Some found that it definitely meant one thing, and others thought differently, but the majority considered it could be read in two ways, i.e., 500 points for each 28 m.c. contact, or 500 points for all contacts (one bonus only, irrespective of the number of contacts).

The Contest Committee suffered motions of censure to no end, not to mention many unpleasant discussions, over this matter. Finally the committee resolved that, in the interests of the true ham spirit, a compromise must be effected that would be equally fair to each party. Consequently two separate awards have been drawn up and will be made by means of two certificates; one for the man who set out to work a large number of countries and an occasional 28 m.c. contact, and the other for the one who concentrated on that band with the understanding that he would receive 500 points for each contact. This means that the 28 m.c. man is com-

peting with others in the same section and the all-band man with those that come under his class only. This arrangement will apply in all countries.

Many VK's will notice that their claimed score is considerably higher than that which appeared on their logs. Owing to a typographical error in "Amateur Radio" only one point was allowed per QSO, and in all the other contemporaries three points were shown. The VK logs that bore a one-point claim have been corrected on the three point basis.

Rule 13 undoubtedly had a marked effect as regards to the tone of the competitors' signals. Happily we can announce that not one station was disqualified, though having worked with a tone consistently less than T8.

The only disqualification that had to be effected was that of VK4US, whose log return did not cross-check to the satisfaction of the Contest Committee. VK4US claimed 43,656 points.

Many contacts had to be crossed out in the cross-check because of serial numbers not being identical in both cases. VK2LZ was the heaviest loser in this respect. He had to forfeit about 8500 points through showing numbers that were not in agreement with those sent and received by the contacted station. When 500 points a contact are at stake stations should have paid considerable attention to the accuracy of the number exchange. Several American stations will observe that their 28 m.c. claims have not been allowed, and it is for the reason just given. Contests which depend on serial numbers as the exchanged message require these numbers to be accurately transmitted and received. This is the operator's pigeon and no one else's.

VK3EG's award of £1/1/- to the station that made W.B.E. in the shortest space of time was made to VK2EO, who worked the British Empire by 0410 on 6th October. Congratulations, 2EO!

Entries in the Handicap Section were very poor. Nobody, with the exception of two stations, made any effort to claim an award in this section. One station of these two clearly stated on the top of his log that he was an entrant in the Handicap Sec-

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tion. Thinking that the rest had left this claim to the imagination of the Contest Committee, all logs bearing power inputs less than 50 watts were sorted and worked out. Under the rule of 500 points for each 28 m.c. contact VK4GK won this section with a score of 540 points per watt. Under the other meaning of the rule VK3KX returned a figure of 455 points per watt. It is rather obvious that chaps do not seem to worry about a Handicap Section, and consideration will be given in future to leaving it out altogether. Those who are desirous of seeing such a section in future contests are invited to communicate their views to the committee immediately.

Special mention must be made of the ultra fine co-operation that was tendered by the D.A.S.D. This society made use of the contest as a local affair as well, in that special certificate awards were made to the winners of the various districts as well as a range of prizes (tubes, etc.) in certain cases. Due to this we received the German logs all sorted in the correct order, together with a list of the scores the D.A.S.D. had awarded and checked. The receiving section was treated in the same manner and greatly helped the work of the committee.

Outside Germany and England the returns from the receiving stations were very poor and disappointing. The balance was made up by one return from U.S.A., one from PA, one from Spain, and one sole entrant from VK. It is easy to see where the enthusiasm in the short wave receiving gang lies. For the DE and BRS stations a receiving section in any international contest is essential, and as long as they get some fun out of such a contest we will continue staging them for their benefit.

Cracks—Wise and Otherwise.

G6LK is proud that he established the first VK-G contact on 28 m.c. during the contest. It looks as though something good has come out of Rule 14 after all! To quote K6AUQ: "To say that it was a pleasure to work in the contest would be putting it mildly." G6OJ wanted to get in early, so he sent his log via air mail. The same ham sent an excellent station description along, but unfortunately we will not have room for it in

"Amateur Radio" this month. W5EHM found competition rather great during the year, and had to QRO from 100 to 900 watts in order to make himself heard! W5EBT says, "Here's to another contest next year." Many VK and ZL's were heard at VE3WA, but none contacted so far. G6RB and others plea for shorter CQ calls. Best operators worked by W3BES were VK7RC, ZL2KK, VK2EO, VK2HF and VK3KX. Best ZL's at "G2AGW" were ZL2CI, ZL1GX and ZL2GN. DE 1692 EA, operating in Spain, heard VK6SA, VK5HG, VK4BB and VK3BD rolling in on ten metres. VE5BI worked VK and ZL's at most unusual times. This seemed to be the case all over the world. Both 7 and 14 m.c. appeared lively the whole 24 hours each week-end. W3DBD, like many others, states his score was nothing to gaze at, but enjoyed the contest nevertheless. GI6YW blew up his power transformer during the last week-end. YL2BB, at Riga, Latvia, East Europe, put a good signal into VK. G2ZQ started off well on the first week-end, but was QSP'd to Belfast by the BBC suddenly. W9TB's log was six feet long! VE2HG invites any VK hams visiting Canada to step around and have a look at his Centenary contest certificate framed on the wall. VR2OZ, ex VK2OZ, contacted many old friends. The VU gang had special log sheets printed for their gang. VU2EB must have bought three of them! VK3MR sent in another of those logs that looked more like an illuminated address! Oyex! Oyex! VK3KR managed to get fone over to South America and qualify for WAC on phone. VK2EL must have gone on board the Strathnaver to recuperate; that's where he wrote out his copy of the log, anyway! W5ARO put up a 132ft. length of wire in place of the 60-footer, and got much better results. W6KRI sent 777,777 36 times. W6TI did not have time to put up as good a show as last year. W8ZY gives good reasons why VK and ZL stations should always indicate from what end of the band they intend to start listening; he also suggests a QRZ after a QSO in place of another CQ for a change.

Amateur Radio

Australian and New Zealand Logs.

Scoring Basis: 500 points for all 28 m.c. contacts.

1. VK3EG 42,150	36. VK5ZX 1,096
2. VK3MR 23,750	37. VK3LJ 1,008
3. VK3KX 21,812	38. VK3VW 972
4. VK7RC 21,384	39. VK5MZ 972
5. VK4BB 20,240	40. VK3DM 882
6. VK5FM 19,982	41. VK3GC 858
7. VK4AP 15,206	42. VK3UW 756
8. VK2EO 14,175	43. VK2DR 735
9. VK7JB 11,678	44. VK6MN 528
10. VK2HF 11,600	45. VK3YP 512
11. VK2OJ 10,725	46. VK5WR 504
12. VK6FO 9,275	47. VK3BQ 503
13. VK2AS 9,236	48. VK3ZW 399
14. VK2DA 6,615	49. VK5HD 378
15. VK2ZC 6,472	50. VK2EG 360
16. VK4GK 5,516	51. VK3HG 315
17. VK2LZ 5,180	52. VK3JA 312
18. VK3CP 4,752	53. VK3OR 252
19. VK5LD 4,368	54. VK5RX 252
20. VK4EI 4,340	55. VK3RJ 216
21. VK6SA 4,217	56. VK3OW 192
22. VK2GM 4,161	57. VK2KJ 162
23. VK3DP 3,240	58. VK5DQ 135
24. VK3HK 3,009	59. VK3ZC 120
25. VK5KL 2,823	60. VK6JE 90
26. VK2HZ 2,372	61. VK3HL 84
27. VK3XQ 2,304	62. VK6CP 72
28. VK5DW 2,268	63. VK3KR 60
29. VK2OC 2,001	64. VK2PV 48
30. VK5RT 1,785	65. VK6PK 48
31. VK2EL 1,709	66. VK4UR 36
32. VK6KZ 1,709	67. VK3TL 27
33. VK3PG 1,275	68. VK4CG 27
34. VK2YL 1,260	69. VK5MX 6
35. VK3WH 1,248	

1. ZL2CI 23,099	12. ZL2QM 1,365
2. ZL1DV 19,680	13. ZL2LE 900
3. ZL1GX 19,400	14. ZL1AR 608
4. ZL4BQ 17,424	15. ZL4BT 405
5. ZL2KK 16,512	16. ZL2OD 364
6. ZL3BJ 16,330	17. ZL3JX 144
7. ZL2GN 11,160	18. ZL2FA 45
8. ZL2QT 4,650	19. ZL2GQ 34
9. ZL3AJ 3,065	20. ZL3CU 27
10. ZL1FE 2,688	21. ZL3CP 12
11. ZL3AB 1,938	

Scoring basis: 500 points for each 28 m.c. contact. The following scores are awarded only to those concerned:

VK4BB . . . 48,740	VK4EI . . . 14,840
VK3EG . . . 42,150	VK2EO . . . 14,175
VK4AP . . . 36,206	VK4GK . . . 13,516
VK2LZ . . . 36,180	VK7BJ . . . 13,178
VK3KX . . . 25,312	VK2HZ . . . 12,372
VK3MR . . . 24,250	VK2AS . . . 11,236
VK7RC . . . 21,384	Etc.
VK5FM . . . 19,982	ZL1GX . . . 24,900
VK2HF . . . 15,100	ZL1AR . . . 608

American Logs.

Scoring Basis: 500 points for all 28 m.c. contacts.

W1CMX . . . 624	W6EPZ . . . 710
W1GSH . . . 72	W8HVU . . . 600
W1APA . . . 12	W6RH . . . 595
W1ZI . . . 12	W6GTM . . . 165
W1BBN . . . 9	W6KJK . . . 96
W1FPP . . . 3	W6JH . . . 72
W2BYP . . . 1,566	W6IZE . . . 72
W2DZA . . . 716	W6AM . . . 36
W2AIW . . . 525	W6DPK . . . 9
W2HHF . . . 462	W6BVX . . . 3
W2BSR . . . 450	W6LVQ . . . 3
W2GVZ . . . 36	W7DL . . . 2,190
W2CC . . . 12	W7AVV . . . 1,244
W3EVT . . . 1,229	W7DBY . . . 105
W3SI . . . 1,152	W8ZY . . . 2,460
W3BES . . . 720	W8JIN . . . 1,410
W3EVW . . . 675	W8LIR . . . 756
W3ENX . . . 195	W8AAT . . . 144
W3FKK . . . 189	W8DGP . . . 48
W3DBD . . . 180	W8APB . . . 24
W3CZO . . . 72	W8HGA . . . 12
W3AWH . . . 27	W8DWV . . . 12
W3EJO . . . 54	W8CBI . . . 3
W4AJX . . . 1,550	W9TB . . . 4,800
W4AJY . . . 875	W9IJ . . . 3,800
W5EHM . . . 3,187	W9FM . . . 2,660
W5QL . . . 3,017	W9AEH . . . 1,755
W5EBT . . . 2,280	W9GHN . . . 878
W5WG . . . 941	W9BQM . . . 590
W5AFV . . . 794	W9ADN . . . 525
W5EUL . . . 135	W9BTW . . . 420
W5BDW . . . 72	W9PST . . . 324
W5ARO . . . 72	W9CP . . . 234
W6KRI . . . 5,040	W9LW . . . 180
W6CEM . . . 2,670	W9NNZ . . . 96
W6FZL . . . 2,670	W9CCV . . . 84
W6GRX . . . 2,220	W9TIZ . . . 84
W6KBD . . . 1,560	W9RSE . . . 60
W6DIO . . . 1,148	W9DQD . . . 48
W6TT . . . 918	W9MRW . . . 36
W6TI . . . 840	W9UAZ . . . 12
W6CIS . . . 716	W9LQ . . . 3

scoring basis: 500 points for each 28 m.c. contact. The following scores are awarded only to those concerned:

W2DZA . . . 1,216	W6EPZ . . . 4,510
W3EVT . . . 1,729	W6RH . . . 3,096
W4AJY . . . 1,878	W6CIS . . . 1,716
W4AJX . . . 1,550	W7AVV . . . 10,744
W5EHM . . . 2,670	W9TB . . . 11,350
W5QL . . . 12,020	W9IJ . . . 6,830
W5WG . . . 10,941	W9FM . . . 6,660
W5AFV . . . 1,294	W9BQM . . . 2,090
W6GRX . . . 7,720	W9GHN . . . 878
W6DIO . . . 10,148	

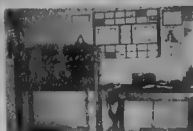
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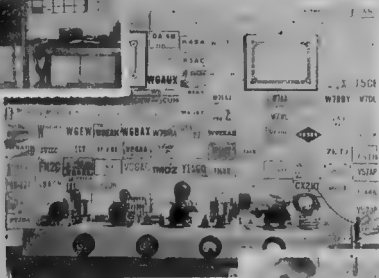
PAOJMW



D4BHN



OK2OP

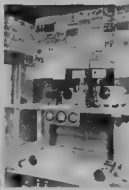


PAOAZ

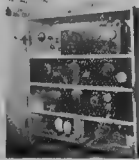
G6LK 2BMC.



PK3ST



W6KRI



D4GAD

Amateur Radio

British and Foreign Logs.

Scoring Basis: 500 points for all 20 m.c. contacts.

CR7MB . . .	225	KA1CM . . .	135
CR8AA . . .	1593	K5AZ . . .	2295
CX1CG . . .	1431	K6AUQ . . .	1350
D4ARR . . .	4070	LU1CH . . .	1365
D4CSA . . .	1410	LY1AG . . .	12
D4GAD . . .	660	LY1J . . .	384
D4GWF . . .	644	NY2AB . . .	1269
D4KPJ . . .	524	OA4J . . .	2106
D4DZMK . . .	503	OH3NP . . .	63
D4MNL . . .	408	OK2LO . . .	3
D4JVB . . .	252	OK2OP . . .	2220
D4LWN . . .	231	ON4RX . . .	999
D4LYN . . .	120	ON4AU . . .	581
D4GOF . . .	72	OZ9Q . . .	1140
D4DTC . . .	48	OZ2M . . .	3
D4LGM . . .	30	OZ7KQ . . .	120
D4MLL . . .	27	PA/AZ . . .	1740
D4BEC . . .	24	PA/UN . . .	1269
D4BUF . . .	12	PA/JMW . . .	552
D4HAF . . .	12	PA/RN . . .	90
D4OYT . . .	3	PA/WH8 . . .	3
EA4AO . . .	3120	PK1MO . . .	702
EI9G . . .	144	PK1WB . . .	270
EI4G . . .	3	PK2MP . . .	648
GI6YW . . .	864	PK3LC . . .	3810
ES7C . . .	12	PK3ST . . .	336
F8EB . . .	2250	PK4RM . . .	300
F8VP . . .	554	SP1LM . . .	72
F8TQ . . .	552	SM2VP . . .	60
F8GV . . .	234	TI2EA . . .	210
F8EO . . .	135	VE5BI . . .	2070
F3LE . . .	103	VE3WA . . .	216
F8RR . . .	48	VE1EP . . .	144
G6CJ . . .	2220	VE4IG . . .	108
G5YG . . .	1770	VE1HG . . .	72
G2PL . . .	1400	VS2AG . . .	288
G6RB . . .	1200	VQ8AF . . .	156
G2YL . . .	506	VS6AH . . .	2660
G2HG . . .	506	VS6AX . . .	2376
G2OI . . .	252	VS7RP . . .	36
G2ZQ . . .	225	VR2OZ . . .	120
G5WG . . .	216	VU7FY . . .	2730
G6XN . . .	210	VU2EB . . .	1770
G6LK . . .	196	VU2LJ . . .	644
G5BP . . .	180	X1AY . . .	1256
G5RV . . .	84	XU3ST . . .	12
G2WQ . . .	48	YM4ZO . . .	794
G5JU . . .	30	ZS2X . . .	9541
G5JM . . .	12	ZS1H . . .	503
HB9AT . . .	2370	ZT5Z . . .	285
J2HJ . . .	1172	ZU5U . . .	36
J2LK . . .	456		

Scoring basis: 500 points for each 20 m.c. contact.

The following scores are awarded only to those concerned.

D4ARR . . .	5070	J2HJ . . .	13,672
D4GWF . . .	1144	J2LK . . .	2956
D4KPJ . . .	1524	ON4AU . . .	4081
D4ZMK . . .	503	VS6AH . . .	2660
G6LK . . .	2096	VU2LJ . . .	644
G2PL . . .	1400	X1AY . . .	1256
G2YL . . .	1006	YM4ZO . . .	794
G2HG . . .	1006	ZS1H . . .	2580

Receiving Section.

Australia.—B.E.R.S. 195, E. W. Trebilcock, 20,640 points.

U.S.A.—W. C. Littlewood, 18 points.

Spain.—DE 1892 EA, 3,350 points.

Holland.—PA-R226, 878 points (2878).

England—

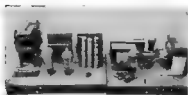
BRS 1535 . . .	2,070	2BTQ . . .	1,200
BRS 1173 . . .	2,040	2BLK . . .	1,140
BRS 1581 . . .	1,890	2AXX . . .	870
2AGW . . .	1,620	2AFA . . .	135
2BVU . . .	1,566		

Germany—

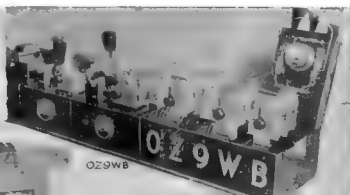
DE1729/U . . .	3,320	DEH2549/F . . .	600
DE2161/J . . .	2,580	DEH2097/U . . .	594
DE1914/H . . .	2,520	DEH2526/K . . .	486
DE2614/P . . .	2,400	DEH2617/P . . .	480
DE2441/T . . .	2,340	DEH2572/M . . .	432
DE2089/H . . .	2,220	DEH1889/O . . .	360
DE2857/L . . .	2,190	DEH2709/F . . .	357
DE1789/D . . .	2,130	DEM1137/U . . .	336
DE1556/D . . .	1,800	DEM2415/H . . .	324
DE2665/T . . .	1,800	DEM2439/T . . .	288
DE2409/F . . .	1,796	DEM2881/O . . .	252
DE1963/R . . .	1,730	DEM2346/K . . .	234
DE3250/M . . .	1,380	DEM2581/I . . .	144
DE3022/U . . .	1,140	DEM2800/N . . .	105
DE3036/H . . .	1,026	DEM3285/T . . .	54
DE2782/K . . .	1,020	DEM1417/F . . .	48
DE2290/I . . .	696	DEM2442/T . . .	45
DE2093/U . . .	945	DEM1970/F . . .	36
DE1943/H . . .	918	DEM1977/B . . .	27
DE2078/D . . .	837	DEM2951/I . . .	3

WEST AUSTRALIAN ARTILLERY SIGNAL STATION, G-71.

This station, sometimes using the call sign VK6KZ, works on 66 and 73.1 metres, but may be worked by our stations to the delight (?) of the DX hunters, who imagine it to be some new and distant outfit. They are always glad to QSO.



D4GAO



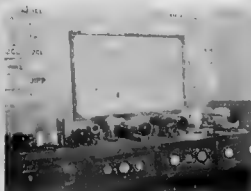
OZ9WB



W6T



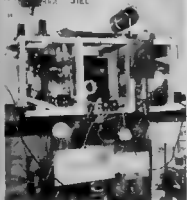
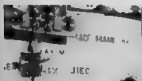
D4GAD



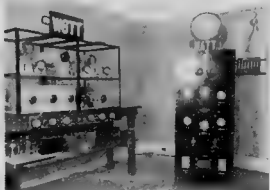
W6CEM



W3EVW



W4AJX



W6TT

German Report of 1935 VK-ZL Event

(By D4BUF.)

There is to be another contest in 1935, VK3ML said last year. And here is the German report of this year's event, with its new thrill and the same difficulties as the year before.

Well, comin' along from the Saturday's work and them—a lot of time to take a good dinner, so sleep several quarters of an hour, to drink a cup of tea what rest before start!

At the early eve goin' to the "rev-ver" and tryin' catchin' our old friends of the year before there in Oceania. The newcomers, our New Zealand friends, were comin' thru' at other times as the "Aussies," multiplying our chances of getting another of these desired contacts by that.

ZL is the longest distance to work from here, but one of the most consistent DX which proved to be reachable very easily.

The conditions of the contest were changed considerably. One change was met in favour with our hams; it was the reduction of test time, these 24 hours proving sufficient for working a lot of Aussies and NZ's. A physical breakdown didn't happen, as far as we were told. The October sickness, typical for German hams last year, this characteristic "Aussie-headache," was unknown this year.

But, oh, why did you change the scoring of the contacts so seriously? Last year our merit was the distance, and the VK's were glad to work long distances, thus bringing a lot of points. This year the interest of the Aussies was considerably less in working difficult DX, most of the Oceanian participants being satisfied to work one D4 only during contest!

The experiences of the contest 1934 were useless for the 1935 event. This time conditions changed to higher frequencies, 14 m.c. proving most successful in the early hours of the European morning. God be praised, less fone QRM happened on 14 m.c.,

the band-saws working still on beginner-band of 7 m.c. In the different parts of our countries very different reports of the energy blowers came. One chap was testing on ten, and had bad success; the other heard much on 40, but worked "better things" on 20, etc. But they all say that the better luck was on the 14 band, especially in the hours where the normal person takes his last sleep. The winners of this year's event—of course, D4ARR, ex D4BAR, Hans Bauer, and H. Schulz, D4CSA, were working with all possible tricks to get the ear of their remote friends. D4ARR had such QRK's, as he reports, that you over there were thinking he was keying an Australian or N.Z. station.

Wave-changing is the main trick to free from other competitors. Or the trick to use the CQ call of another competitor for QSO's of one's own. It showed very useful for D4ARR to know in what direction these Oceanian boys were turning the knob of their dial, so that he was able to put himself on the right place in the band. Hi! "My QRK's were still large enough," he writes, "but these chaps had to find me first, and this is the secret of my more than hundred contacts. . . ." D4ARR was the best European DX-hunter, and he got the first place this year again with 4,070 points, in spite of the new smaller scoring!

One chap had to work one QSO only to get 503 points—one ten-metre VK contact. Why do more to get a good place? Hi! Sorry to say that only 17 German transmitters were assisting the nice hunt, but the scores improved so that we are satisfied with our result.

The best work in the 1935 event did the DX-fishers in opposition to the DX-hunters. Hi! Our DE's were very keen to find and catch the whistles of VK and ZL and to bring on the paper every signal they heard from them. Forty boys were grinding off the tips of their pencils on that rough paper

(Continued on page 14)

A Simple Way of Re-magnetising Headphones

Contributed by Bob Cameron, VK3FQ
(Ex 30T, 4ZL, 2XV.)

The following way of re-magnetising ordinary headphones is not generally known, and has been found by the writer to be satisfactory in all the cases in which it has been used:—

No special equipment is required, only a few truly junk parts—no magnets, batteries or direct current source. The ordinary house lighting alternating current is used.

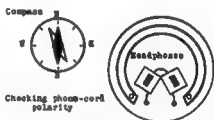
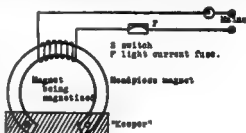
The material required is a small quantity of covered wire about 24 swg., and a fuse somewhat lighter in gauge than the house fuse in order that the auxiliary fuse will blow first on short circuit.

There is very little preliminary work to set up except the removal of the permanent magnet from the headphones. Some phones have a solid magnet, whilst others are laminated. It is advisable to note the polarity by a compass when removing the magnets, as this method often magnetises the weak magnet in the opposite polarity. This is not usually an inconvenience, as the magnets can usually be mounted upside down if necessary. Anyhow, this objection may be overcome by re-magnetising once more or reversing the cord connection. The final object of these remarks is only to insure the correct magnetising current being maintained through the phones when in use so that they will not be de-magnetised once more.

Before describing the actual method a hint to make sure the phone cords are correctly polarised may not be out of place.

The static plate current of the output tube is usually sufficient to cause an indication on a compass placed near one pole of a headphone. The compass should be placed near one pole of the headphone so that it is partially attracted from its natural direction of seeking north and south. This should be done with no current

flowing through the phones. By watching the compass needle it should show an indication when the plate current of the phones commences. If the cord connections are correct the compass needle will give an increased movement in its already attracted direction. Wrong polarising will cause a deflec-



tion of the needle in a reversed direction. Check both phones and the polarity of the magnets and then remove the magnets.

The sketch should show how the magnetising is done. The covered wire is wound roughly on top of the magnet. A large number of turns is unnecessary. About a hundred turns or so can be wound on in quick time. The magnet may have a "keeper" of soft steel placed across the poles, although it is not always necessary.

The ends of the improvised coil are now connected to the AC mains with the fuse in circuit. The hopeful ham now turns on the juice, the fuse blows, and the magnet is out of ten he has a properly rejuvenated magnet. If not, he makes another fuse and tries again

(continued on page 29)

The Construction of an Inexpensive Moving Coil Milli-amp Meter

By K. G. ALLEN, VK5UH.

Probably a large number of hams have D.C. moving coil ammeters about the shack, and have put them aside, wishing they were milliamp meters.

A D.C. ammeter is merely a low range moving coil milliamp meter with a shunt across it. The following will give some idea of how easily it may be altered into a first-class plate current meter.

Unscrew the case and remove the works, etc., being careful not to damage the hand or moving coil. If the meter is a fairly high range ammeter, say full scale, 20 amps, the shunt will consist of a copper strip, unsolder and remove this.

The next step is to find out what movement the meter has, i.e., what it reads full scale without the shunt. To do this, connect it to a source of D.C. supply, say a 45-volt B battery, being careful to put a register (carbon type) in series; try a high value of resistor at the start—about 1 meg. Close the circuit and watch the hand of the meter; if it doesn't move, the resistance is too high and must be reduced. Experiment with it until the hand is approximately on full scale; now take the meter out of circuit and connect up with one which is calibrated and read the current, which will probably be anything up to 15 milliamps. This is too low for plate current measurements, so a shunt must be constructed. It will be seen on inspecting the scale that the divisions are equal, and not crowded at one end. If the scale is 0-20 amps by steps of 5, thus—0-5-10-15-20—it is best to alter the face to read 0-200 by simply adding 0 after the figures.

It may of course be altered to read 0-100, but it will be necessary then to alter the figures, and these are harder to write in. Above the word "amperes" write the word "milli", thus finishing the face.

To construct the shunt, the following is necessary:—A calibrated D.C.

milliamp meter full scale about 200 milliamps; D.C. power supply, any voltage, but capable of standing up to 200 milliamps, and some voltage dividers that will be O.K. with 200 milliamps.

Connect the calibrated meter, the power supply, and voltage dividers in series, and adjust the dividers until the meter reads 50 mills.

Take some resistance wire from an old rheostat and solder it across the leads from the moving coil of the meter, being calibrated. The best place is the back of the terminals of the case. Only two or three inches of wire will be necessary.

Connect the meter in place of the calibrated one, and read the current. It may be higher or lower, and the shunt must be adjusted till it reads exactly 50.

Now again connect the calibrated meter in circuit and adjust the voltage dividers, so that the current is 150 milliamps. If the meter being calibrated is now again connected, it will read 150 milliamps. The job is now finished, and if the shunt has been made carefully it won't be possible to detect any difference in the reading of either meter when in circuit.

(Continued from page 12)
of our uniform DASH logs.

Well, OM, a contest is a good thing, and the time spent for it is amusement, but the VK-ZL event was again the best of these things, and we are looking forward to the next one.

In addition, we think that a lot of VK and ZL hams fulfilled during contest the rules of the German transmitting master. We are enclosing a photo of this diploma and its rules, and, if you can, please publish these things in your magazine.—W. Hawky.

Correspondence Section

The Interference Problem.

(By W9FM.)

Without for a moment denying that our bands are excessively crowded, and are likely to become more so in future years, we wish to make some suggestions which, if they would reduce interference 25 per cent., would be distinctly worth while.

Our pet illustration of the present state of affairs is an experience during the 1935 A.R.R.L. international contest. When a receiver (with crystal) was tuned from 13,950 to 14,000 kc. we heard nothing, but from 14,000 into the band at least 100 kc., there was just a "wall of sound," in which W calls could simply not be copied. The volume indicator, which was at minimum up to 14,000 kc., just went up and stayed there, wiggling somewhat when we tuned into the band. DX signals could be heard only because conditions permitted them to come through with better volume.

But what were all these W's doing—working each other? No! Just calling, mostly fruitlessly. Many would send 20 calls or so before raising anyone. In fact, some were calling a DX station that had been closed for an hour while the operator was at luncheon. In 1934 we tried to raise ZS2A, and did so on the 32nd attempt of the fourth night.

In the 1935 test we heard Dick Bartholomew, K4SA, attempt to "break-in" on stations calling him, mentioning the long calls. But think of the several hundred W stations who had spent hours calling! Why shouldn't they call, always in the hope that "this time" will raise him? The mistake is not so much that of the long-calling W as the DX station that doesn't indicate how he is going to tune his receiver at the end of the previous QSO.

It would seem that a DX station would follow one of two logical methods—tuning from the frequency of the last station worked, or tuning from an edge or from the middle.

What other choice is there? Is there much excuse for tuning just from any old point, unsystematically, to some other point on the dial? But now a station on 7150 kc. will call CQ and be called from both ends of the band; another on the 14 m.c. band will be called by many stations at various parts of the same end, and even by a few at the other end! What a waste of time and power, interfering with others! What needless QRM!

Our suggestion involves using this international abbreviation: QSX—"I will listen for . . . on . . . kc."

On finishing a QSO, K4SA could have sent, "QRZ? QSX 14,300 de K4SA," or cut it down just to "QSX 14,300," indicating approximately where his receiver is tuned, and only stations close to that frequency need bother to call—the rest have no chance. Or, when there is not a long waiting list of fellows ready to call, use one of these:—

QLM—"I will tune from the low frequency and across the middle."

QML—"I will tune across the middle toward the low frequency end."

QHM—"I will tune from the high frequency end across the middle."

QMH—"I will tune across the middle toward the high frequency end."

These are easy enough to remember. Just keep in mind "low, middle and high," using the proper initials to indicate. The use of "middle" seems to some to be a complication, but permits tuning from the middle, giving the fellows in the middle a chance, also making four "edges" in each band for the W stations to pile up into. It will help to scatter the stations rather than force them to concentrate at the edges and fight it out.

During the 1935 A.R.R.L. contest, ZE1JB used these, saved plenty of time and QRM. Once, from around 14,300 kc., he used QLM at which

(continued on page 20)

Things You Didn't Know

By VK2KB.

Strange, is it not, how we hams of 1935 think we are the salt of the earth with our measly little 25 watt (?) outfits and our paltry DX? And, perhaps you want to know what prompted the thought? Well, you see, it occurred this way.

DX wasn't so bad the other night. In fact it was dam-fine. I'd only been at it four hours and had raised three W6's in a row and they all gave me Rmax, the liars. Was just about nodding after the strenuous ordeal of copying the "tnx QSO, 73 cul" three times in as many minutes, when I thought I heard a DX sig, and felt called upon to respond nobly with a special effort.

Making a few hasty calculations in the log book (good ham practice that, scribbling in the log book!) I discover that 50 CQ's are necessary to raise VK and 150 to raise W or other DX. If authority is necessary for this deduction try the 40 metre band any night, then swoon. Well, to make a long story short, I hoisted in another bale of hay, fired the boilers, trimmed the wicks, oiled the key and went to it. After fourteen minutes it appeared certain that I would surpass the record of 743½ CQ's established by A. Payne-in-the-neck, but missed out by 2½ CQ's.

However, it did the trick for back came that t9 r½ sig., which turned out to be Alexander the great way back in the 17th century, plus or minus, 20 per cent. Great Scot. Alex. mentioned that he had just cut his last Gordian knot and had been crying for sometime about the shortage of world's, but realising that VK was a new country in the bag he promised to dry his eyes PDQ, which was good of him.

We had quite a good QSO, and I mentioned some of the fb gossip we have dished up to us in school histories about the old boys of his time and Alex. got proper annoyed about this distortion of the truth, especially when I told him about Canute ordering the waves back. Alexander said

it was a dam lie. What really happened was that Canute was making a study of Wave Motion down at Margate or Billingsgate or Crystal gate or some such, and stayed so long that he got his feet wet. So, you see, Canute deserves our respect for his work in the cause of science instead of our jeers.

My friend Alexander also said that the tale about King Alfred and the widow's cakes was all hoosy and that Alf. didn't get his shins kicked at all.

The trouble came about through Alf. raising a QSO right at dinner time and he was such a tender-hearted guy that every time the other op. came back with "73 and cuagn," Alf. simply had to go over again and say "tnx" and they kept at it so long that the dinner went cold and the landlady switched off the juice.

I also learned that King Charles was beheaded for whistling into his microphone, so I went back "muy pronto," which is bum Spanish for "in a hell of a hurry," and said it was a pity they hadn't carried such an honorable and worthy custom down through the years.

Another execution noted by historians was that of Ann Boleyn, so I asked Alexander what happened to her. He said that being a YL she couldn't observe the regulation about the secrecy of third party messages and spilt the beans about a QSO she heard between Henry the Eighth and another YL. Worst of it was, Henry's fone was nearly as bad as some we hear to-day, so I guess we can't blame her for getting it all wrong. However she lost her head . . . was quite cut up about it too, poor girl!

It also appears that King Bruce, after watching a spider trying to land a hawser onto a convenient beam, was inspired to do mightily, so went home and actually worked a South American for his WAC. Perhaps you wonder why his name does not appear on the list of the mitey? Brothers . . .

there's a reason! He's still waiting for the QSL!

I am also in the position of being able to give to the world the real story behind the burning of Rome. You remember the show when Nero played the obligato. It may be news to many to know that Nero was the cause of the whole mess. It is practically certain that Claudius Vacuum Tubus, who was on the publicity band at the time, had Nero on the mike doing his stuff. Claudius didn't think of the extra jolts under modulation and turned the gain control up another spot with the result that the midget condenser couldn't stand the 3,000 and promptly burned up the bum insulation and set the shack on fire, so there you have it

Alexander also passed on a hint which I shall submit to Cannedbeera. He said that when the treasury became depleted they put a tax on BCL QSL's and made a wad. I agreed that the time was ripe for another clean up.

We fell to discussing ham radio generally, and I complained about the commercial racket. Alex. said James got that way once and figured the king couldn't go wrong and just to prove it set up a 500 cycle AC racket in the middle of the band.

From that we got to other QRM and Alex. said YL QRM wasn't anything new 'cos Caesar had been trying to raise Mark Anthony for months but Cleopatra didn't seem to be interested in Ham radio.

I also have the honor to inform you that one Horatius, a Roman bold, was the originator of five metres and set up a 5-metre 'phone across the Tiber when he was bridge-keeper there.

About this time the sigs began to fade a little from my end so I pounded the key a little harder after the manner of hams work working DX and accidentally got myself all mixed up with the HT.

I woke with a rush (boy and how!) and cast about for the inspiration for this wild dream. There, peeping at me from under the pile of QSL I've threatened to post for weeks, was the reason, "the bright blue cover of "Amateur Radio," dated October, 1935."

Editor's Footnote.

With reference to the concluding sentence of the above article—Blame us not, oh you scribe! That date sadly dogs our sleeping and waking thoughts, for it seems like 1935 since we received our last technical contribution.

As we go to press we learn with regret that Jack McMath (VK3JJ) is an inmate of Prince Henry's Hospital as a result of a motor cycle accident. We feel sure that all hams will join with us in wishing him a speedy recovery.—Ed.



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R.A.A.F. Wireless Reserve Notes

RESERVE NOTES, VICTORIA.

(3Z1-VK3UK.)

All V.M.C. members join with me in wishing other districts a very Happy New Year and a record year for Reserve activity and progress. We are looking forward to the arrival of our crystals, in order that our new method of running schedules may be introduced. In Victoria this year, weather permitting, we are going to carry out a number of portable exercises with all conditions, approximating as nearly as possible to those of a state of emergency. Our one aim for 1936 is going to be a maximum interest and maximum efficiency for minimum drudgery. One of the greatest difficulties which persistently besets any traffic organisation is that the work necessary to maintain efficiency does become very boring unless a constant stimulus of new interest is being infused all the time. In Victoria we have struck all the snags and are gradually evolving a perfect system of training, where our aim, mentioned above, will be realised.

We have had flying visits from 3B3, 3C3 and 3D4 within the last couple of weeks, but as each was in a hurry to return, our talks were brief.

3C3 brought down his new portable transmitter-receiver with him, and it is a beautiful job. We always look for a perfectly finished piece of work from Ivan, and this outfit is no exception. The band changing in both transmitter and receiver is accomplished by just rotating two switches and tuning the Tritet doubler tank and 'phone to C.W. only requires the flicking of a switch. A description will shortly appear in "A.R.," so I won't give any technical details.

3D4 has had a bad throat for a while, but is recovering now. He is still managing to carry on schedules during his rebuilding operations at home.

3B5 is just recovering from a serious appendicitis operation and is convalescing at Black Rock.

3A5 had an accident to his right hand. It is slowly healing now, and in the meantime has been carrying on schedules, using his left hand.

Our personal notes seem rather to be a report from a clinic rather than radio notes!

3Z2 has to be congratulated on gaining his 10-metre W.L.A.C. He contacted the much-sought-after South American, after 3B2 had contacted this man for over 20 minutes.

3Z1 took advantage of the suspension of schedules over the Christmas holidays to take down both masts and put in fresh halyards with the help of 1A1 and Co. Both masts were pulled down and re-erected in the one morning. 3Z1 is rebuilding his transmitter in preparation for the forthcoming BERU contest.

The new line-up will be 53—TB04/10—TB04/10's in P.P.

RESERVE NOTES, SIXTH DISTRICT. (By 6Z1-6MN.)

During February the BERU contest will occupy our spare moments, and consequently watches will be suspended. An unofficial camp is being held at Northam in March by the Reserve members of the Aero Club, who have invited two members of W-T Reserve to attend and operate two transmitters and receivers. It is possible that 6Z2 and 6A5 may attend the seven-day camp. New watch-keeper this month (6A6) at Katanning, who, although not in possession of a signal manual, manages to put up good performance. 6Z1 is going away on annual holidays, preparatory to BERU contest. 6Z2 turns up for watch according to the condition of his liver. 6A1 seen in town and finds running a B.C. station and ham one takes a bit too much, and consequently the ham one suffers. 6A2 will be another BERU starter, and asks rude questions about arrival of crystals for Reserve work. 6A3 paid a visit to Perth over the holidays, but not heard since return home. 6A4, no news. 6A5 on a few months' holiday, and 6A6, our latest recruit, is quite active.

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Life-saving Construction

(By W9FM.)

During the past fifteen years we have had a few experiences in the matter of getting across the high voltage supply of various transmitters, the latest resulting in a vaccination mark that has nothing to do with smallpox. Pressing the key, leaning over to peek around the rack and bumping against the plate milliammeter was the cause. Several cases of getting tangled with 1500 volts or more included one of tuning a "200 meter" transmitter back in 1922, and accidentally trying to move a clip on the inductance and pushing the key at the same time with the other hand. Figuring one foot for each 100 volts, most of it must have been up, for we landed behind the chair without upsetting it!

For years, reports have reached us of accidental deaths from power supplies. From the outfits most of us use, it is a wonder that the death rate is so low. But there are many precautions which can, and should, be taken. Perhaps you know of others, but here are some.

Primary keying is a great help. It largely eliminates fooling with the transmitter when the power is on, because when the set is not radiating there is no high voltage.

It is customary to ground the negative high voltage to the ground or shielding. This is very dangerous. We once touched the positive end of 2300 volts, rectified, and at the same time bumped against a radiator. Because the negative was not grounded we live to tell the tale. If it is necessary to ground a transmitter, such as when using a single wire feed antenna, do it through a good high voltage condenser. Grounding the shielding is satisfactory just so neither ground nor shielding is connected to the negative except perhaps through the high voltage condenser. Don't hook low voltage supplies and circuits to high voltage ones—it is usually not necessary with link coupling, and at other times it can be done through a

high voltage condenser. Don't connect the negative to more metal than is absolutely necessary—that just increases the dangerous area, and likewise the possibility of getting hold of both the negative and positive.

Always use "parallel feed" in high voltage stages, regardless of choke losses. Put in plate blocking condensers able to stand more than twice the peak plate voltage. If tubes of the 852 type are used, string cheap glass beads on the wire plate lead to make it nearly impossible to touch. Put the stopping condenser close to the plate lead, and wrap several layers of good rubber insulating tape over the bare binding post. Give the plate r.f. chokes the same care. Use an insulating bevel over the front of the plate milliammeter and tape up the binding posts in the rear. If the plate lead goes to a tube socket, cover the terminal somehow. The power supply can receive the same treatment, but if not possible, enclose the unit in such a way that opening a cover or door automatically breaks the primary voltage. In short, build the rig so that neither the plus nor the minus high voltage can be touched even accidentally. It should be absolutely impossible to get both ends of the power supply at the same time. Once we pushed a hand in the W9MZ transmitter with the high voltage generator running; something touched something, and we had to count our fingers by feeling with the other hand to find how many were left. When our sight recovered from the flash we saw that one finger had been between things, and the bone was laid bare.

If your keying system involves connecting the key to the high voltage, such as with bias or centre tap keying, use a relay insulated between armature and coils well enough to stand the full voltage; and don't use the filament voltage to operate the relay—use a separate transformer winding.

(Continued on page 29)

28 and 56 M.C. Section

(By VK3JJ.)

The most outstanding events on 28 m.c. during the past month were two contacts with South American HJ3AJH. VK3HK was the first to work this station at 10.30 a.m. on December 26th, after which VK3BQ completed his 28 m.c. WAC by working the same station. 3BQ is therefore the first VK to accomplish this feat, and, considering that he has been active on ten metres ever since the band was allotted, he thoroughly deserves the success. Congratulations, OM!

Communication with Europe improved during December and early January in Victoria, and 3BD, 3BQ, 3CP, 3YP and 3NM had many QSO's with G's, D's, OH, etc. G6DH and D4ARR seemed to be the strongest and most consistent of these stations. 3OF and 3JJ visited Sydney during the holidays and met most of the VK3 stations operating ten. We were surprised to learn that no Europeans had been heard or worked during December in either N.S.W. or Queensland, which seems to point to the band being effective over a comparatively small arc, which has gradually changed from the north in spring to the south in midsummer. It will be remembered that in October the VK2's and 4's could work Europeans who were not audible in Victoria.

The W's have not been quite as consistent lately, but it is noticeable that the ones using beam antennas are usually among the strongest. W6JN has been much improved since installing his. W5WG is now using a simple half wave horizontal radiator with a single resector wire, the whole mounted on a frame which can be rotated. Although only using 75 watts input to a pair of 210's in the P.A., his signals are usually as good as those using five times that power.

Matched impedance coupling to Zepp antennas is getting popular among VK3's, and most of the recent DX worked by 3BD, 3BQ and 3YP has been accomplished with this type. The

flat tops can be either 2, 3 or 4 half waves long, which should give strong radiation on four peaks at various angles to the wire. 3NM found that by increasing the length of Zepp feeders to 24 feet, instead of opening a switch at the 8-foot mark, he so altered the characteristics of his antenna that made all the difference needed to work DX. Since the change his signals have been much weaker locally.

VK6SA worked his second W, W6JJU, towards the end of December, and has found conditions very patchy. Two or three Europeans have also been worked, and he is receiving dozens of European listeners' reports, mostly German. VK6MN is on occasionally and CQ's, but has no QSO's.

(Continued from page 15)

Rodimon, W1SZ, raised him at 14,004 kc., followed directly by W9FM; both had been at the other end, made a quick change, and a successful, short call. In the recent VK-ZL test ZL2KK used QHM frequently, could be raised on three calls and one sign!

DX stations could reduce W QRM for each other by the use of these five signals, in and out of contests. Even W stations should make a habit of using them to reduce needless calls, permit short calls on the part of those who then know that a short call will be effective.

Let's all use these Q signals regularly.

E. H. CONKLIN, W9FM,
(Assistant Editor, "R/9"),
512 N. Main Street,
Wheaton, Illinois.

Ten Metre Meanderings

(By VK5LD.)

Conditions on 28 m.c. in N.S.W. are much the same as regards the time that DX comes through. Most W's are weak, the exceptions being a few W6's, notably W6ZH on phone and CW.

Interstate signals are very FB. and easy to raise; heard 3BQ at 9 p.m. on 5th inst., but he faded shortly after. Did you hear my call, OM? VK's 4EI, 3BD, 3BQ, 5ZC and 5HG are all putting good signals through, but no sign of 3JJ or 3OF. Guess you must have both got bushed on the way back, although heard a rumour from 2YC that 3JJ spent several hours QSO Europe the night he arrived back.—VK2BX.

(By VK4US.)

Roy Belstead, VK4EI, from way up north, first started the ball rolling on 28 m.c. with his record-breaking QSO's with Europe, being the first VK to contact Europe on that band. He started off by working ON4, D4, F8 and OH on the first week-end of the VK-ZL DX test. He was closely followed by VK4AP and VK4BB, who lost no time getting amongst the DX.

The DX test was influential in opening up 28 m.c., as the 500 point bonus for each QSO enticed DX men from all continents to have a try on that band.

On 22/12/35 VK4AP had a doubtful QSO with LU9AX, making him first 28 m.c. W.A.C. in VK.

4AP was received solid by LU9AX, but the LU faded out on Alf!

VK4BB was the first East Coast VK to QSO Africa on ten, bagging ZS1H immediately after he was finished with 6SA. 4BB also was the first VK to make W.B.E. on ten. 4AP followed 4BB in working ZS1H by QSO'ing him an hour later on the same day. 4GK was not long in following, he having worked all continents except South America.

During the DX both 4AP and 4BB were working on an average about 12

Yanks each week-end on 28 m.c., but 4EI didn't have much success from that quarter. His sigs seemed to have an affinity for Europe.

VK4GK, EI and BB require South America for 28 m.c. W.A.C.

VK4XN works the Yanks and Japs consistently, but hasn't had much luck with Europe.

VK4US has worked a few Yanks and Japs, but on the whole hasn't had much success, as his receiver rather patchy on 28 m.c.

The highlights were:—VK4EI, first VK to QSO Europe; VK4BB, first East Coast VK to QSO Africa; VK4AP, first VK QSO with Ireland; VK4BB, first VK W.B.E.; VK4AP, first 28 m.c. W.A.C. in VK, 22/12/35; VK4EI, first VK QSO with Sweden, Germany, Hong Kong, Finland, Belgium, Austria and France.

The favourite rig appears to be Xtal using an R.C.A. 800 as P.A. This is used by 4AP, 4BB and 4GK. 4EI uses a pair of RK 20's in the final.

The most consistent stations heard in VK4 on 28 m.c. are:—FA8CR, ZS1H, W8CRA, W4AJX, X1AY, J2IS, J8FJ, W2TP, W9NY, ON4AU, ON4AC, G8LK, G6WY, F8KJ, YM4AA, OH7ND, D4ARR, G2YL, OK1AW, VS6AH and PK3ST.

At the present moment conditions appear to favour the extremities of the Continent, North Queensland and VK3 seem to be hearing most of the good DX.

Ten-metre conditions in VK5 were good as far back as 1928-30, when VK5CM contacted Africa, VK6RW Siberia, and VK5HG India and Japan. Local stations have been there regularly since, but no outstanding DX has been worked until recently, when, during October, 1934, QSO'd D4ARR and U.S.A. stations. Numerous VK5's have QSO'd Japan and U.S.A. regularly. VK5WJ on telephony has

worked G, PA, OK, W, J, with European reports up to R8.

Unfortunately activity is confined to a few operators, and the band has not been used to its utmost. It is suggested that stations endeavour to tune the whole range of 28 m.c., and not just the low frequency end, where the majority seem to congregate.

VK6KL, 5HG, 5FM, 5SU, 5WU, 5JC, 5LJ, 5LB, 5ZC all report active on 28 m.c. and have had DX QSO's there.

Ten-metre activity in VK6 first started early in 1928, when VK6SA started up with a pair of 20LA's in the transmitter and a two-tube receiver. Shortly afterwards Jack Watson (then OA6JW) came on with a similar rig. For some months 6JW and 6SA, who were about half a mile apart, had to content themselves working each other, as no other ham signals except local harmonics were heard. A number of commercial harmonics were also heard.

Quite a sensation was caused on 2nd September, 1928, when VK6SA and VK3BQ contacted and established the first interstate QSO on ten. Having broken the ice, VK6SA was soon QSO all States except Tasmania, and VK6JW soon did likewise, but shortly afterwards went off the air, leaving the band to 6SA.

In 1930 VK6WR decided to try ten, and worked a few eastern States. For the next five years ten-metre activity in VK6 was at a low ebb, VK6SA being the sole occasional occupant, except for a short period during 1932, when he and VK6AG carried out duplex fone transmissions on ten over a distance of 4½ miles.

Late in 1934 activity revived, and VK6MN and VK6CP came on to accompany VK6SA, who had just built a CC rig, using a pair of 46's in the final. VK6CP was unsuccessful in effecting QSO's other than with 6SA and 6MN, and soon retired from the band. VK6FO came on for a couple of week-ends during the last VK contest (1935) and effected his only ten-metre QSO with PK3ST.

Although 6MN has been a consistent trier, he has so far had only two QSO's outside VK6, one with J2HJ and the other with VK4BB. VK6SA has worked all VK (except 7), ZL, J, PK, ZS, D, F, G, EI, PA, W and VU, in each case being the first VK6 QSO.

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Federal and Victorian Q.S.L. Bureau

(By VK3RJ, Federal QSL Manager.)

Log forms and copies of rules for the forthcoming B.E.R.U. tests may be had on application to this Bureau, or to the Victorian B.E.R.U. representative, Mr. R. Ohrbohm (VK3OC).

Mac, of VK3QY, who had his old call sign, 3YR, pinched during a very temporary lapse of licence, is back on the air after a sojourn in the Owens Valley, a district in which he anticipates spending more time in the near future. Leave a few trout for me please, Mac.

Leo Maguire, another old-timer, who used to sign VK3LX in Wodonga a few years ago, is back on the air under the call sign VK3KM. His splendid fist has not suffered during his enforced absence from the air. Present QRA, Myrtleford.

The gang will regret to hear that Dud McDonald (VK3DM) is again experiencing bad health and is confined to hospital. I trust that before these notes appear in print he will be up and about again. In any case he welcomes visitors, who will find him in Ward 4, Alfred Hospital, Melbourne. His interest in radio is keen, and he eagerly awaits South American cards for his WAC. Pay him a visit.

VS1AJ advises he is on 28 m.c. regularly, and is on the look out for VK.

Ivor Stafford (VK3XB) is spending the school vacation at the parental home at Heathcote Junction. Considers that location ideal for the tx which he brought down with him, and is pleased to know that the flies and heat at Manya North will have to seek fresh victims for a couple of months at least.

M. Mozoomder, who pushes the key at VU2CQ, and who put out the best sig on the 14 m.c. band, but who possesses the world's worst receiver, bemoans the lack of QSL's from VK. On one occasion following his CQ, I counted 17 stations answer from all parts of the world, but OM Mozoomder still called CQ. The following VK's owe him a card:—2KS, XL, OJ,

AS, JZ, HX, BW, ES; 3GC, WX, LP, EG, OM, MR, XQ; 4AP; 6RT, WR, LD, MH, MD, KA; 6GP, CA, AA, JW, LJ, HP, FO, FL, SA; 7JB. Drop him a card direct to M. Mozoomder, care Indian Radio and Cable Communications Co. Ltd., Radio House, Apollo Bandar, Bombay, India.

The attention of listeners is directed to a decision of the Council of the R.S.G.B. appearing in the November "Bull." Council decided that after 1/1/36 the R.S.G.B. will no longer accept report cards from listeners for distribution in Great Britain and Europe. The R.S.G.B., however, will continue to distribute report cards relating to the 1.7, 28 or 56 m.c. bands, claiming that reports on these bands have a very definite value.

VR4BA, ex VK2BA, is active on 14 m.c. His QRA is:—B. Chapman, Kakambo, British Solomon Islands.

For the information of numerous members and competitors who complained of the indefinite construction of the rule relating to bonus points for 28 m.c. contacts in the recent VK-ZL DX contest, and who as yet have had no official intimation on the point, it is stated that the matter was discussed by the November meeting of the Key Section of the Victorian Division, who moved that Council investigate the matter prior to the allotment of points. Council, after discussion, suggested to the Contest Committee that two separate lists of ~~awards~~ be drawn up, one recognising one bonus only, and the other for 28 m.c. competitors alone recognising a bonus for each contact.

Cards are on hand at the Victorian Bureau, 23 Landale Street, Box Hill, for the following:—3AI, AP, AX, AY, BE, BS, BX, CK, CL, CW, DD, ET, EW, FL, FM, FT, FZ, GB, GE, GM, GW, HE, IL, JC, JH, JK, JN, JR, KB, KD, KM, KT, LK, LP, LQ, NA, OI, OP, OU, OZ, PA, PH, PL, QK, QL, QR, AY, RE, RW, SL, SP, TB, TE, TD, UJ, UR, UW, UY, VK, WC, WH, WX, XF, XK, XU, XZ, YF, ZA, ZL, DINAN, THOMPSON.

Divisional Notes

Divisional Addresses :-

NEW SOUTH WALES	BOX 2127L, G.P.O., SYDNEY
VICTORIA	BOX 2611W, G.P.O., MELBOURNE
QUEENSLAND	BOX 1524V, G.P.O., BRISBANE
SOUTH AUSTRALIA	BOX 284D, G.P.O., ADELAIDE
WEST AUSTRALIA	62 SUBIACO ROAD, SUBIACO
TASMANIA	BOX 547E, G.P.O., HOBART

Victorian Division

'PHONE SECTION NOTES.

(By VK3DH.)

Owing to the fact that a meeting of the 'Phone Section did not take place in December, a report on the meeting cannot be made; likewise the doings of the members individually are on the obscure side.

Our chairman (3TH, Mr. G. F. Thompson) made a holiday visit to New Zealand over the Christmas holidays, and I think we might hear something of that at the meeting on 28th January next. Of course, when these notes appear that will be all over and we shall know all about it.

Although I have met the gentleman in question several times since his return to Melbourne, he was not particularly talkative on the subject. One thing that was mentioned, however, was with regard to reporting to VK amateurs. Apparently a number of New Zealand "D.-Xers" were rather in the dark as to what really constituted a useful report, and they were duly enlightened. So I guess we can expect something more concrete in the way of reports later on.

According to the regular manner in which transmissions were made during the Christmas holidays, one is led to believe that not many of our gang went away for any length of time.

30Y is one exception. He migrated to the heights of Daylesford for an indefinite period. He is still there.

3XL went away for a short spell, and was active with portable gear on 7,000 and

14,000 k.c. He deserted the 14,000 k.c. activities for the time.

Fairly consistent "rag chewing" has gone on, commencing at 0600 hours each Monday morning, between HF, CR, FW, TM, FL and BY. So they apparently did not take a lengthy sojourn.

BH is on the move again. He is transferred to Mornington this time, and, after a reasonable interval for reinstallation of the gear, Charlie promises us that he will be disturbing the air again.—73.

S.W. NOTES.

By G. W. Manning (VK3XJ).

On account of the Christmas and New Year holidays, there has been very little activity within the Group, hence the briefness of these notes.

The attendances at meetings of late have been showing a marked decline, and, to arouse a little more enthusiasm in the gang, a series of lecturettes and experiments will be held on each meeting night, i.e., second and fourth Wednesdays of each month. Gang, a glimpse of your face at the next meeting will cheer us all up. Never let it be said that you have lost heart. Bring along your friends; we want more members.

VK3HX (Tom Hogan, of Charlton), paid the Group a visit on 22/1/1936, and has been having an FB time in VIM. Too bad that Tom had to leave us so soon.

It is with regret that we lose the services of our well-liked chairman, Arthur Mildern, owing to his promotion with his firm requiring a little more devotion of his time to business matters and less to radio. Good luck from the gang, Arthur!

Our new chairman is none other than Herbie Stevens (VK3JO), and the gang extend to him all the best in his new office.—73.

N.S.W. Division

LOOK TWO NOTES.

(20-2HV.)

CQ versus YL and YL the victor was evidently the case with Ray, of 2HC, who was married last month. Good luck and congratulations to you both from the rest of Zone 2. Ray will be definitely QRT until a lighting plant is installed at his new home.

2KR is on consistently on 80 and 40 with CC, and is building a linear amp. for 14 m.c. work. The bottle to be used is a 20 watter, and, speaking of bottles, I believe Cess and the old John, of 2XQ, busted a bottle of KB on the platform at Walgett t'other night. Good work! Hi!

2KN gets out well when not QRL with work, cricket and YL's.

2XQ, three stages and all 46's; 240 D.C. used on CO, but a converter puts the volts on the Bfr., and PA John can be heard QSO Ivan, of 3EG, most week-ends, and very QRQ, too. Re QRQ, old 2VO turns out a swell line of bug keys; price, cheap; quality, real FB.

2DD is now Secretary of the Tamworth Amateur Radio Club, and, although Don. is the only transmitting member at present, it looks like "It won't be long now." The new rack and panel job is the chief item of interest at present—59 Trifet, 59 Bfr., 10 Bfr. and 800 final. Sounds the Berries. 2DD tried on one occasion to QSY, but ground crystal out of the band. It might come in handy after the Cairo Conference, Don.

2ZP looks like giving up ham work for RAAFWR, although second operator Joe should have his own ticket in a few months.

Ivan Newport, a successful candidate in a recent A.O.P.C. examination, visited Inverell for his Christmas holidays. Although Ivan has not yet received his call sign, he has proved himself a fair dinkum ham. Five and forty metres will be Ivan's chief haunts.

Good old John, of 2DZ, who travels for a well-known radio firm, had the misfortune (much to Cess's delight) to leave his sample crystal mike at 2KR's place for a few months, and, believe me, Cess made the most of this opportunity and boosted up the quality of his tone lots. John is on the look out for contacts with Sydney hams per medium of Zone 2 stations, and was recently QSO Freddie Stirk, old 2XV and Mac, of 2ZH, from 2HV.

Rumoured that there is a movement afoot to get Mac, of 2ZH, and Bill Picknell back to Zone 2.

2ZX still knocking 'em over, and has reports from almost every worth-while town in VK on his 240-metre tone. Ted's YL is on a visit from Sydney, so for the time being 2ZX is off the air.

2HV, QRL RAAFWR work, YF and junior second operator. However, should be on 40 and 20 in a week or two.

No dope to hand from 2RV, 2NF, 2JF, 2CR, 2UR or 2WT.

Anyone at all who can supply dope on the doings of any Zone 2 chaps are requested to shoot same along to 2HV any time.

73 now and a Happy New Year to the rest of VK from the Zone 2 gang.

NEWCASTLE NOTES.

(By VK-2KB.)

Well, the festive season came and went. Christmas must again be noted for the continued failure of Daddy Christmas to bring the big bottles the boys want. The old boy probably figures we're doing well enough with our 46's!

2MT is anyhow; seems to work all there is on 20. It might be murmured that Chas. won the trophy for the last three months of 1935, and then had to work on the night of the beani when it was to have been presented!

N.A.R.C. regrets that Bob Best (now 2TY) and Geoff. (2FN) have left Newcastle for work in the country. 2CS has a huge antenna, which wanders into everyone's back yard for blocks around. Uses Collins and puts hefty sig. into EA and all points west. Frank (2UF) does not have much to say; he just goes out and gets 'em.

2QS and a new 'un (2UI) seem to be forming an unholy alliance out Mayfield way. Welcome, 2UI, ob. George (2SO) still insists his location is NRG. Boys say "allee same gargle" he makes club nights, but do those boys make that coffee dy?

Allen (2KB) says new outfit will probably be too pretty to work, and threatens trip to W soon.

Of the local broadcast engineers, 2KG is busy with new daughter. 2ZC is building some excellent gear between DX, and 2MS continues to blow things—the latest wreck a 5KW bottle. Hi! He even says he didn't feel ill. My, what this commercial radio does to a ham! 2ZW is training the new junior YL op. to wake him when DX is on! Hasn't been so good up to now, but that kid sure gets ideas at funny hours of the a.m.

2RG still pounding key and recently holidaying with a portable at lake with 2BG. Had visit from 2XU t'other day. GH. threatens big things. Always pleased to see visitors in this neck of the woods.

The local club has plans in hand for a publicity campaign for ham radio. QRU—73.

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Queensland Division

The new year has started favourably. D.X. conditions seem to be improving steadily. Of course, QRN, as usual during summer, causes some trouble on 7 M.C., but the majority of D.X. signals seem to break through quite well.

14 m.c. is rather patchy, D.X. being very scarce at times.

It has been decided to run code practice nightly on 7 m.c., from 6.30 to 7 p.m., for the benefit of students. Monday, VK4U5; Tuesday, VK4U1; Wednesday, VK4UR; Thursday, VK4OL; Friday, VK4AW; Saturday, VK4CR; Sunday, VK4HR.

In future, "Amateur Radio" will be supplied free to all members who pay their fees for the year in advance.

VK4AP had a scratchy QSO with LU9AX on 28 m.c. on 22/12/35, which makes him W.A.C. on 28. FB, Alf!

VK4RC using grid modulation on his P.A. with excellent results. The quality of the music is swell, but the speech is a bit rough.

VK4UL, the latest addition to the "U" gang, uses T.P.T.G., with 20 watts, on a 46, and seems to get out quite well. Good luck, Paul!

VK4HR is the proud owner of a seven-tube "Sniggle Sniggle Snooper." "Tibby" swears by and at it.

VK4UR and 4UU.—QRL holidays.

VK4OL working taps with 15 watts on a 46. Frank has just completed a 4-5 T.B.F. receiver, which sure does pull in the D.X.

VK4EI still working the Europeans on 10. FB, Roy, O.M., hope to see you get that South American soon!

VK4FJ, another newcomer, working plenty of Yanks with a T.N.T. and 25 watts on a TB0/410. Roy can copy as fast as you can send it. Give him a shout, boys!

VK4LE has not been heard lately. Guess he's had "holidayitis" as well. Let's hear you some time, George!

VK4RM has been heard showing out some pretty decent fone on 7 m.c., but the carrier is rather unsteady. Whaffor. Bob?

It is the PLAIN DUTY of every member of W.I.A. to support the advertisers in these pages, and when doing so MENTION "Amateur Radio". Not much trouble to YOU—but it means a lot.

Western Australian Division

(By VK6LJ.)

During the past month we were fortunate enough to renew our acquaintance with some of our country members, and amongst those who travelled to the city superb were 6LR and 6LK, both of Northam; 6RW, of Wagin; 6MS, of Geraldton; 6RK, of Ora Banda (somewhere north of Kalgoorlie), and 6KS, of Meckering. Quite a few of those mentioned have not been on the air for some time, so perhaps this will wake them up. (I said perhaps!) 6KS is too busy with bank work and hotel QRM to break the ether yet, but promises an early awakening! 6LK still awaiting results of exam. 6RK installing new Diesel engine on gold mine, and sez he may return shortly.

There is nothing new in the VK6 W.I.A. Division, becoz we are all in recess, but the gang have supplied me with a couple of good articles and hope they will appear in print before long. Oh, yes! Charlie 6AC was another who traversed the wide open spaces between Corrigan and Perth, and saw Father Xmas! 6BB and 6BN—the old contemptibles! You know, Jack, we once had a W.I.A. museum. Now, how about Lizzie, in case you don't know she is Noah's daughter in the shape of a Ford 1066 model? Now we will leave Jack alone and tempt someone else—6CB. Cliff was the chappie who once upon a time had a car battery, and all he wanted was a car. I mean he had a car and all he wanted was a battery! 6CX not heard. He must be QRL something else. I wonder what? 6CA must be on 56 m.c., as we haven't heard him! And 6CP has something up his sleeve! Yes, sir—his arm! 6AE has given up the idea of breeding birds, but he still has plenty of chirps! 6CY down at the Port never heard of! Say, OM, what's the trouble? 6DA wi break into hamdom early in the new year, too! 6DH QRL on his new Standard, and has car radio, and is general de luxe model. 6FG blew the dust off his portable gear the other day, but don't forget, Frank, that a licence is necessary! Hi! (What a nasty one!) 6FL on 14 m.c., but complains of QRN. 6DJ still on 6FO QSO-ing plenty. FO was laid out sumtime ago when he

got the full HT. Bad luck, Nell, but switch it off first! 6GW on 3.5 and warns us he will be on 14 m.c. shortly. 6GM—to George we extend our sympathy in his recent bereavement. 6GS—now Blake, when are you coming on the air? 6HW—ah! Harry is a dark horse! I heard him QSO-ing ZT the other morning about 4.30 a.m. 6JK seldom seen. Say, Jack, when will we hear you? 6JJ QRL PMG telegraph work, but will be on shortly. 6JW has been away on holidays and will be in BERU test. 6JG, another one of those who have luxurious jobs and get holidays! 6JH gone into the bush. 6JE trying to get on 14 m.c. with new gear. 6KO—congrats., George, and good luck in your new sphere of life. 6KZ on 14 m.c., but QRN too bad. 6KM warns us that he will be on shortly. 6KB on 7 m.c. and can be heard regularly. 6LJ busy—pardon? 6LK—Minor was QSO G6 and D4 on 28 m.c., with low power. FB, Alan! 6LY is still QRL had attack of yitis! Good ole Ralph, he will be the next to go off. 6LR never heard down here, but has few months' holidays. 6MW has spent a holiday on Penguin Island, but didn't use radio. 6MN QRL with DX! Oh, yeah! 6NJ gone quiet with his fone, but I spose he is still recuperating after Xmas! 6PK seldom ever seen, never mind heard, and now 6RD is another not on the air. He said sumtime abt going into the bush for a while. 6RW paid us a visit while down, and I was pleased to see his beaming face! Hi! 6RL busy swotting, pse don't disturb him. 6SA down on ten and revamping for BERU test. 6WS on 7 m.c. with CW and fone during the day. Only day, thanks. 6WI has stopped just for a moment, but will be on again soon. 6WM and 6WH using same gear at present. Congrats., OM. And at Katanning Harry, of 6ZZ, punches the key. Also 6MX is heard on frequently. And there still remains sum students to be criticised! Mr. Wignall is bizl on his super blooperdyne leaning out of the window and getting Chill. Mr. Morrissey has joined the social committee and is kept going. Redfern Smith and Pearce are all too bizl for exam. to be disturbed, so they will be let off. We gang QRU now 73 till next month. GB, Jack.

The Bruno Mike

The Australian Engineering Equipment Co. Pty. Ltd., of 415 Bourke street, Melbourne, announces the securing of an important agency. The new representation covers the two types of Bruno and Velocity



Microphone. This famous mike, which today is used by nearly all the leading American broadcasting stations, has just been landed, and is listed from £10/10/-. It has a frequency response plus or minus db from 50 to 12,000 cycles. The company would be pleased to supply full information to enquirers.

Country Readers!

Traveltone Radio, of Bourke street, reports increasing sales. This concern is anxious to interest country hams, and invites them to study the advertisement in this issue. Traveltone Radio specialises in practically everything wanted by readers, and communications from the country will have prompt attention.

The Council of the Victorian Division was delighted to receive a visit from the Federal President, Bill Moore (VK2HZ), who made a special trip to Melbourne recently.

(Continued from page 13)

until he is successful, but usually the first time acts.

The secret of magnetising on alternating current is that the fuse usually blows before the cycle of the AC has had time to reverse. Sometimes, of course, it does, but fuse wire is cheap. Owing to the fact that the ordinary common garden type of fuse is unable to discriminate as to whether it will blow on a positive or negative cycle, the polarity of magnetising is not guaranteed. The magnet may become reversed in its poles, so if it is not possible to fit your magnets upside down in the case, one must blow fuses until the polarity becomes as desired.

(Continued from page 19)

Of help is a large 100 volt red lamp which burns when the high voltage transformer is on. Don't light the lamp from the key or relay circuit, but take the voltage directly from the transformer primary, so that a frozen relay will keep the lamp lit, even if

the switches are in the "off" position.

We learned long ago to keep one hand in a pocket, and never to stand on anything but insulation—or to kneel on a chair—when touching the transmitter, on or off. Perhaps that is why it has been 13 years since we took the high voltage through the heart. A few thousand volts between the fingers or down one arm may only burn off a bit of flesh; the same voltage between two arms or from hand to leg may very well be fatal.

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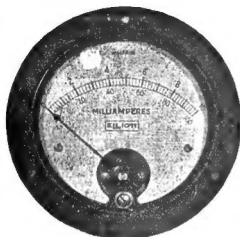
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